

## **NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS SECONDARY ANALYSIS GRANTS**

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REQUEST FOR APPLICATIONS: NCES-06-01

INSTITUTE OF EDUCATION SCIENCES

<http://www.ed.gov/about/offices/list/ies/programs.html>

LETTER OF INTENT RECEIPT DATE: June 6, 2005

APPLICATION RECEIPT DATE: July 21, 2005, 8:00 p.m. Eastern time

THIS REQUEST FOR APPLICATIONS CONTAINS THE FOLLOWING INFORMATION:

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### **1. REQUEST FOR APPLICATIONS**

The Institute of Education Sciences (Institute) invites applications to conduct secondary analyses of the nationally representative achievement data collected by the National Assessment of Educational Progress (NAEP) and the NAEP High School Transcript Studies (HSTS). For this competition, the Institute will consider only applications that

meet the requirements outlined below under the section on Requirements of the Proposed Research.

## **2. OVERVIEW OF THE INSTITUTE'S RESEARCH PROGRAMS**

The Institute supports research that contributes to improved academic achievement for all students, and particularly for those whose education prospects are hindered by conditions associated with poverty, minority status, disability, family circumstance, and inadequate education services. Although many conditions may affect academic outcomes, the Institute supports research on those that are within the control of the education system, with the aim of identifying, developing and validating effective education programs and practices. The conditions of greatest interest to the Institute are curriculum, instruction, assessment and accountability, the quality of the teaching and administrative workforce, resource allocation, and the systems and policies that affect these conditions and their interrelationships. In this section, the Institute describes the overall framework for its research grant programs. Specific information on the competition(s) described in this announcement begins in [Section 3](#).

The Institute addresses the educational needs of typically developing students through its Education Research programs and the needs of students with disabilities through its Special Education Research programs. Both the Education Research and the Special Education Research programs are organized by academic outcomes (e.g., reading, mathematics), type of education condition (e.g., curriculum and instruction; teacher quality; administration, systems, and policy), grade level, and research goals.

a. *Outcomes.* The Institute's research programs focus on improvement of the following education outcomes: (a) readiness for schooling (pre-reading, pre-writing, early mathematics and science knowledge and skills, and social development); (b) academic outcomes in reading, writing, mathematics, and science; (c) student behavior and social interactions within schools that affect the learning of academic content; (d) skills that support independent living for students with significant disabilities; and (e) educational attainment (high school graduation, enrollment in and completion of post-secondary education).

b. *Conditions.* In general, each of the Institute's research programs focuses on a particular type of condition (e.g., curriculum and instruction) that may affect one or more of the outcomes listed previously (e.g., reading). The Institute's research programs are listed below according to the primary condition that is the focus of the program

- (i) *Curriculum and instruction.* Several of the Institute's programs focus on the development and evaluation of curricula and instructional approaches. These programs include: (1) Reading and Writing Education Research, (2) Mathematics and Science Education Research, (3) Cognition and Student Learning Education Research, (4) Reading and Writing Special Education Research, (5) Mathematics and Science Special Education Research, (6) Language and Vocabulary Development Special Education Research, (7) Serious Behavior Disorders Special Education Research, (8) Early Intervention and Assessment for Young Children

with Disabilities Special Education Research, and (9) Secondary and Post-Secondary Outcomes Special Education Research.

- (ii) *Teacher quality.* A second condition that affects student learning and achievement is the quality of teachers. The Institute funds research on how to improve teacher quality through its programs on (10) Teacher Quality – Read/Write Education Research, (11) Teacher Quality – Math/Science Education Research, (12) Teacher Quality – Read/Write Special Education Research, and (13) Teacher Quality – Math/Science Special Education Research.
- (iii) *Administration, systems, and policy.* A third approach to improving student outcomes is to identify systemic changes in the ways in which schools and districts are led, organized, managed, and operated that may be directly or indirectly linked to student outcomes. The Institute takes this approach in its programs on (14) Individualized Education Programs Special Education Research (15) Education Finance, Leadership, and Management Research, (16) Assessment for Accountability Special Education Research, and (18) Research on High School Reform.

Applicants should be aware that some of the Institute's programs cover multiple conditions. Of the programs listed above, these include (3) Cognition and Student Learning, (14) Individualized Education Programs Special Education Research, and (15) Education Finance, Leadership, and Management. Finally, the Institute's National Center for Education Statistics supports the (17) National Assessment of Educational Progress (NAEP) Secondary Analysis Research Program. The NAEP Secondary Analysis program funds projects that cut across conditions (programs, practices, and policies) and types of students (regular education and special education students).

c. *Grade levels.* The Institute's research programs also specify the ages or grade levels covered in the research program. The specific grades vary across research programs and within each research program, and grades may vary across the research goals. In general, the Institute supports research for (a) pre-kindergarten and kindergarten, (b) elementary school, (c) middle school, (d) high school, (e) post-secondary education, (f) vocational education, and (g) adult education.

d. *Research goals.* The Institute has established five research goals for its research programs (<http://www.ed.gov/about/offices/list/ies/programs.html>). Within each research program one or more of the goals may apply: (a) Goal One – identify existing programs, practices, and policies that may have an impact on student outcomes and the factors that may mediate or moderate the effects of these programs, practices, and policies; (b) Goal Two – develop programs, practices, and policies that are potentially effective for improving outcomes; (c) Goal Three – establish the efficacy of fully developed programs, practices, or policies that either have evidence of potential efficacy or are widely used but have not been rigorously evaluated; (d) Goal Four – provide evidence on the effectiveness of programs, practices, and policies implemented at scale; and (e) Goal Five – develop or validate data and measurement systems and tools.

Applicants should be aware that the Institute does not fund research on every condition and every outcome at every grade level in a given year. For example, at this time, the Institute is *not* funding research on science education interventions (curriculum, instructional approaches, teacher preparation, teacher professional development, or systemic interventions) at the post-secondary, or adult education levels. Similarly, at this time, the Institute is not funding research on measurement tools relevant to systemic conditions at the post-secondary or adult levels.

For a list of the Institute's FY 2006 grant competitions, please see Table 1 below. This list includes the Postdoctoral Research Training Fellowships in the Education Sciences, which is not a research grant program. Funding announcements for these competitions may be downloaded from the Institute's website at <http://www.ed.gov/about/offices/list/ies/programs.html>. Release dates for the Requests for Applications vary by competition.

**Table 1: FY 2006 Research Grant Competitions:**

1	Reading and Writing Education Research
2	Mathematics and Science Education Research
3	Cognition and Student Learning Education Research
4	Reading and Writing Special Education Research
5	Mathematics and Science Special Education Research
6	Language and Vocabulary Development Special Education Research
7	Serious Behavior Disorders Special Education Research
8	Early Intervention and Assessment for Young Children with Disabilities Special Education Research
9	Secondary and Post-Secondary Outcomes Special Education Research
10	Teacher Quality – Read/Write Education Research
11	Teacher Quality – Math/Science Education Research
12	Special Education Teacher Quality Research – Read/Write
13	Special Education Teacher Quality Research – Math/Science
14	Individualized Education Programs Special Education Research
15	Education Finance, Leadership, and Management Research
16	Assessment for Accountability Special Education Research
17	National Assessment of Educational Progress Secondary Analysis Research Program
18	Research on High School Reform
19	Education Research and Development Centers
20	Postdoctoral Research Training Fellowships in the Education Sciences

### **3. PURPOSE AND BACKGROUND**

*A. Purpose of the NAEP secondary analysis program.* Through its NAEP secondary analysis program, the Institute intends to contribute to improvement of student learning and achievement by (a) identifying programs, policies, and practices that are potentially effective for improving academic outcomes, as well as mediators and moderators of the effects of these programs, policies, and practices, and (b) developing tools or procedures

to assist NAEP users in the analysis, interpretation and reporting of state- and district-level NAEP results or to improve precision in the estimation and reporting of NAEP results.

*B. Background for the NAEP secondary analysis program.* Mandated by Congress, the National Assessment of Educational Progress (NAEP) surveys the education achievement of students in the United States, and monitors their progress over time. Widely known as the “Nation’s Report Card,” NAEP has been collecting data to provide educators and policymakers valid and meaningful information for more than 30 years.

The NAEP program includes two distinct components: “main NAEP” and “long-term trend NAEP.” These two components use distinct data collection procedures, separate samples of students defined by different criteria, and different test instruments based on different frameworks. Main NAEP includes assessment instruments based on frameworks typically developed within the past 10 years. Results from the main NAEP assessments are reported at the national and, in some subjects, at the state level. In 2002 and 2003, exploratory assessments were conducted in a small group of large, urban school districts to determine the feasibility of reporting assessment results at the district level as well. The subject areas assessed as part of the main assessments include reading, mathematics, science, writing, U.S. history, geography, civics, and the arts. State-level results, however, are reported only in reading, mathematics, science, and writing. Background data collected through questionnaires administered to sampled students, the teachers of those students, and administrators of the schools those students attend are also available for main NAEP assessments. The long-term trend assessments are conducted at the national level only, and are administered less frequently than the main assessments. Long-term trend assessments are conducted in only reading and mathematics. Background data for schools and students are also available for the long-term trend assessment.

In addition to these assessment programs, NAEP periodically conducts the High School Transcript Study (HSTS) to investigate the current course offerings and course-taking patterns in the nation’s secondary schools. Thousands of transcripts of high school seniors who graduate from public and nonpublic high schools are collected from a nationally representative sample of schools. Transcript study data are linked to the NAEP 12th grade assessment results providing information on the relationship between course-taking patterns and achievement.

NAEP produces a number of different publications each time assessment results are released. These reports provide summary data to the general public, and focus on the overall national and state results, as well as subgroups of the population. In addition, NAEP has an extensive web site (<http://nces.ed.gov/nationsreportcard>) that provides easy access to all NAEP publications. The web site also houses a number of tools that make the NAEP data and released assessment questions accessible to the general public.

The data collected by NAEP represents one of the richest and most in-depth databases of information about student achievement. As part of its mission to the education

community, NAEP encourages researchers and policy makers to make use of the data and to perform their own analyses and studies on education achievement. Beyond the summary data available on the NAEP website and in NAEP reports, complete access to all detailed data is available to data analysts who apply for and are granted restricted use licenses.

Despite the depth of the information and the availability of the databases, the Institute believes that the NAEP database remains underutilized. Through this program of secondary analysis grants, the Institute hopes to encourage greater use of the NAEP data to inform education research, policy, and practice. Much potentially valuable information that could be gained from the NAEP data remains untapped. This grant program was developed to make resources available to qualified data analysts to explore the NAEP data more fully.

By broadening the user base, the Institute believes that not only will the data be more widely disseminated, but fresh perspectives and new ideas will be applied to analysis of NAEP data. Although the federal government assumes responsibility for collecting these data and making them available to the public, there are opportunities for more analysis of and reporting on the NAEP data than can or should be done by the federal government. By encouraging such broad use of this rich database, the Institute expects that education policy and practice can be informed and enhanced.

It is also expected that by inviting data analysts to work more closely with the NAEP assessment and its data, the program will benefit from additional perspectives on the strengths and weakness of the current methodology underlying NAEP. The Institute welcomes applications for studies that will explore new methodological techniques and new software or analysis models that may help make the NAEP data accessible to a broader range of users.

Descriptions of recently funded proposals are available at <http://nces.ed.gov/nationsreportcard/researchcenter/naepgrants.asp>.

#### **4. REQUIREMENTS OF THE PROPOSED RESEARCH**

##### **A. General Requirements**

a. *Resubmissions.* Applicants who intend to revise and resubmit a proposal that was not funded in the Institute's FY 2005 competition must indicate on the application form that their FY 2006 proposal is a revised proposal. Their FY 2005 reviews will be sent to this year's reviewers along with their proposal. Applicants should indicate the revisions that were made to the proposal on the basis of the prior reviews using no more than 3 pages of Appendix A.

b. *Applying to multiple competitions.* Applicants may submit proposals to more than one of the Institute's FY 2006 competitions. Applicants may submit more than one proposal to a particular competition. However, applicants may only submit a given proposal once (i.e., applicants may not submit the same proposal or very similar proposals to multiple competitions or to multiple goals in the same competition).



c. *Applying to a particular goal within a competition.* To submit an application to one of the Institute's education research programs, applicants must choose the specific goal under which they are applying. Each goal has specific requirements.

d. *Inclusions and restrictions on interventions under each competition.* For the NAEP Secondary Analysis competition, applicants must propose analyses using at least one of the currently available NAEP or HSTS data sets. Applicants who are interested in conducting research projects that generate new data on education processes and attainment should review the other research grant programs supported by the Institute (<http://www.ed.gov/about/offices/list/ies/programs.html>).

For the FY 2006 NAEP Secondary Analysis competition, applicants must submit under *either* Goal One *or* Goal Five. The numbering of goals is consistent across the Institute's research programs. The NAEP secondary analysis program only supports Goals One and Five.

## **B. Applications under Goal One (Identification)**

a. *Purpose of identification studies.* Through all of its research programs that include the Identification goal (Goal One), the Institute intends to support analysis of multivariate data to identify existing programs, practices, and policies that may have an impact on academic outcomes (e.g., reading, mathematics, science), high school graduation and dropout rates, and enrollment in and completion of post-secondary programs, and to examine conditions that may mediate or moderate the effects of these programs, practices, and policies.

Under Goal One of the NAEP secondary analysis program, the Institute expects applicants to use at least one of the currently existing NAEP data sets to capitalize on natural variation in education practices or policies. For example, investigators might link data on state teacher certification requirements that have been compiled by the investigators with NAEP Grade 4 reading and mathematics achievement data to examine the relations between different requirements and student achievement.

**For the NAEP secondary analysis program, applicants must use at least one of the currently existing NAEP data sets.**

b. *Methodological requirements.*

- (i) *Database.* The applicant should describe clearly the database(s) to be used in the investigation including information on sample characteristics, variables to be used, and ability to ensure access to the database if the applicant does not already have access to it. The database should be described in sufficient detail so that reviewers will be able to judge whether or not the proposed analyses may be conducted with the database. If multiple databases will be linked to conduct analyses, applicants should provide sufficient detail for reviewers to be able to judge the feasibility of the plan.

- (ii) *Data analysis.* The data analytic strategy used in the analysis of any NAEP data must take into account the sampling and the psychometric designs of the NAEP data. All the NAEP data are collected using a multi-stage, clustered sampling design. The sampling designs for the national data and most of the older assessment data sets also use stratification and over-sampling within strata. This sampling design has major implications for secondary analysis of the NAEP data.

Similarly, the NAEP psychometric design produces proficiency estimates that are not actual individual scores for the students who participate in the assessments. These multiply-imputed estimates of student proficiency are called “plausible values,” and five such values constitute the “score” for each examinee. Secondary analysts may use these plausible values as their unit of analysis or they may use marginal maximum likelihood techniques to estimate the statistics of interest to their study directly. The psychometric design of NAEP also has implications for secondary analysis.

An accurate and defensible explanation of how the proposed project will account for both the sampling and psychometric design of NAEP is a critical component of every application to this program.

Because predictor variables relevant to education outcomes (e.g., student characteristics, teacher characteristics, school and district characteristics) often covary, the Institute expects investigators to utilize the most appropriate state-of-the-art analytic techniques to isolate the possible effects of variables of interest. Analytic strategies should allow investigators to examine mediators and moderators of programs and practices. The applicant should include detailed descriptions of data analysis procedures. The relation between hypotheses, measures, independent and dependent variables should be well specified.

c. *Personnel and resources.* Competitive applicants will have research teams that collectively demonstrate expertise in (a) the relevant academic content area (e.g., reading, mathematics); and (b) implementation of and analysis of results from the research design that will be employed. Competitive applicants will have access to institutional resources that adequately support research.

d. *Awards.* Typical awards for projects under this goal will be \$65,000 to a maximum of \$100,000 (total cost = direct cost + indirect cost) for a period not to exceed 18 months. Applications for smaller awards and shorter durations are also welcome. The size of the award depends on the scope of the project.

### **C. Applications under Goal Five (Measurement)**

Across the Institute's research programs, the Measurement goals differ in purpose. Requirements described below apply to the NAEP secondary analysis research program.



a. *Purpose of NAEP Goal Five proposals.* Under Goal Five, the Institute intends to improve the usefulness of NAEP data. Applicants under Goal Five must propose projects to develop tools or procedures that will assist other users of the NAEP data to analyze, interpret and report NAEP data more easily and accurately or may propose projects to develop methodological or analytic procedures that will improve precision in the estimation and reporting of NAEP results.

An example of an appropriate project under Goal Five is one that adapts an existing system for creating student skill profiles for use with the NAEP data. Student skill profiles would allow NAEP results to be reported in terms of mastery and non-mastery of the skills represented in the NAEP achievement levels. Applicants under Goal Five may propose projects that are of particular interest to their state education agency or professional organization and that can be generalized to be useful to other NAEP users. Projects that include the development of new software that permits advanced analytic techniques to be readily applied to the NAEP data are encouraged under this goal.

Also appropriate under Goal Five are robustness studies or validity studies. Applicants may propose to test alternatives to some component of the NAEP sampling or psychometric model or to test analytic solutions to problems that were previously intractable in the context of NAEP. For example, an applicant might propose to compare different approaches to estimating statistical bias in analyses of the NAEP data.

**For the NAEP secondary analysis program, applicants must use at least one of the currently existing NAEP data sets.**

b. *Methodological requirements.*

- (i) *Database.* The applicant should describe clearly the database(s) to be used in the investigation including information on sample characteristics, variables to be used, and ability to ensure access to the database if the applicant does not already have access to it. The database should be described in sufficient detail so that reviewers will be able to judge whether or not the proposed analyses may be conducted with the database. If multiple databases will be linked to conduct analyses, applicants should provide sufficient detail for reviewers to be able to judge the feasibility of the plan.
- (ii) *Data analysis.* The data analytic strategy used in the analysis of any NAEP data must take into account the sampling and the psychometric designs of the NAEP data. All the NAEP data are collected using a multi-stage, clustered sampling design. The sampling designs for the national data and most of the older assessment data sets also use stratification and over-sampling within strata. This sampling design has major implications for secondary analysis of the NAEP data.

Similarly, the NAEP psychometric design produces proficiency estimates that are not actual individual scores for the students who participate in the assessments. These multiply-imputed estimates of student proficiency are called “plausible

values,” and five such values constitute the “score” for each examinee. Secondary analysts may use these plausible values as their unit of analysis or they may use marginal maximum likelihood techniques to estimate the statistics of interest to their study directly. The psychometric design of NAEP also has implications for secondary analysis.

An accurate and defensible explanation of how the proposed project will account for both the sampling and psychometric design of NAEP is a critical component of every application to this program. Applicants should include detailed descriptions of data analysis procedures. The relation between hypotheses, measures, independent and dependent variables should be well specified.

c. *Personnel and resources* Competitive applicants will have research teams that collectively demonstrate expertise in (a) the relevant academic content area (e.g., reading, mathematics); and (b) implementation of and analysis of results from the research design that will be employed. Competitive applicants will have access to institutional resources that adequately support research.

d. *Awards.* Typical awards for projects under this goal will be \$65,000 to a maximum of \$100,000 (total cost = direct cost + indirect cost) for a period not to exceed 18 months. Applications for smaller awards and shorter durations are also welcome. The size of the award depends on the scope of the project.

## **5. APPLICATIONS AVAILABLE**

Application forms and instructions for the electronic submission of applications will be available for the program of research listed in this RFA from the following web site:

<https://ies.constellagroup.com>

by the following date:

NAEP Secondary Analysis Program

June 23, 2005

## **6. MECHANISM OF SUPPORT**

The Institute intends to award grants for periods up to 18 months pursuant to this request for applications. Please see specific details for each goal in the Requirements of the Proposed Research section of the announcement.

## **7. FUNDING AVAILABLE**

The size of the award depends on the scope of the project. Please see specific details in the Requirements of the Proposed Research section of the announcement. Although the plans of the Institute include this program of research, awards pursuant to this request for applications are contingent upon the availability of funds and the receipt of a sufficient number of meritorious applications. The number of projects funded under a specific goal depends upon the number of high quality applications submitted to that goal. The

Institute does not have plans to award a specific number of grants under each particular goal.

## **8. ELIGIBLE APPLICANTS**

Because only organizations may be licensed to receive the restricted use NAEP data, only organizations may apply for grants under this program. Any organization or consortium of organizations that has the knowledge and capacity to conduct secondary analysis of the NAEP data is eligible to apply. Eligible applicants include, but are not limited to, non-profit and for-profit organizations and public and private agencies and institutions, such as colleges and universities.

## **9. SPECIAL REQUIREMENTS**

Research supported through this program must be relevant to U.S. schools.

Recipients of awards are expected to publish or otherwise make publicly available the results of the work supported through this program. Beginning June 1, 2005, the Institute asks IES-funded investigators to submit voluntarily to the Educational Resources Information Center (ERIC) an electronic version of the author's final manuscript upon acceptance for publication in a peer-reviewed journal, resulting from research supported in whole or in part, with direct costs from the Institute. The author's final manuscript is defined as the final version accepted for journal publication, and includes all modifications from the peer review process. Details of the Institute's policy are posted on the Institute's website at <http://www.ed.gov/ies>.

Research applicants may collaborate with, or be, for-profit entities that develop, distribute, or otherwise market education products or services. Involvement of the developer or distributor must not jeopardize the objectivity of the research.

## **10. LETTER OF INTENT**

A letter indicating a potential applicant's intent to submit an application is optional, but encouraged, for each application. The letter of intent must be submitted electronically by the date listed at the beginning of this document, using the instructions provided at the following web site:

<https://ies.constellagroup.com>

The letter of intent should include a descriptive title, the goal which the application will address, and brief description of the research project (about 3,500 characters including spaces, which is approximately one page, single-spaced); the name, institutional affiliation, address, telephone number and e-mail address of the principal investigator(s); and the name and institutional affiliation of any key collaborators. The letter of intent should indicate the duration of the proposed project and provide an estimated budget request by year, and a total budget request. Although the letter of intent is optional, is not binding, and does not enter into the review of subsequent applications, the information that it contains allows Institute staff to estimate the potential workload to plan the review.

## **11. SUBMITTING AN APPLICATION**

Applications must be submitted **electronically by 8:00 p.m. Eastern time** on the application receipt date, using the ED standard forms and the instructions provided at the following web site:

<https://ies.constellagroup.com>

Application forms and instructions for the electronic submission of applications will be available by the following dates:

NAEP Secondary Analysis Program

June 23, 2005

Potential applicants should check this site for information about the electronic submission procedures that must be followed and the software that will be required.

The application form approved for this program is OMB Number 1890-0009.

## **12. CONTENTS AND PAGE LIMITS OF APPLICATION**

All applications and proposals for Institute funding must be self-contained within specified page limitations. Internet Web site addresses (URLs) may not be used to provide information necessary to the review because reviewers are under no obligation to view the Internet sites.

Sections described below, and summarized in Table 2, represent the body of a proposal submitted to the Institute and should be organized in the order listed below. Sections *a* (ED 424) through *i* (Appendix A) are required parts of the proposal. All sections must be submitted electronically.

Observe the page number limitations given in Table 2.

**Table 2**

<b>Section</b>	<b>Page Limit</b>	<b>Additional Information</b>
a. Application for Federal Education Assistance (ED 424)	n/a	
b. Budget Information Non-Construction Programs (ED 524) – Sections A and B	n/a	
c. Budget Information Non-Construction Programs (ED 524) – Section C	n/a	
d. Project Abstract	1	
e. Research Narrative	20	Figures, charts, tables, and diagrams may be included in Appendix A
f. Reference List	no limit	Complete citations, including titles and all authors
g. Curriculum Vita of Key Personnel	4 per CV	No more than 4 pages for each key person
h. Budget Justification	no limit	

i. Appendix A	15	
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#### **A. Application for Federal Education Assistance (ED 424)**

The form and instructions are available on the website.

#### **B. Budget Information Non-Construction Programs (ED 524)—Sections A and B**

The application should include detailed budget information for each year of support requested and a cumulative budget for the full term of requested Institute support. Applicants should provide budget information for each project year using the ED 524 form (a link to the form is provided on the application website at <https://ies.constellagroup.com>). The ED 524 form has three sections: A, B, and C. Instructions for Sections A and B are included on the form.

#### **C. Budget Information Non-Construction Programs (ED 524)—Section C**

Instructions for ED 524 Section C are as follows. Section C is a document constructed or generated by the applicant and is typically an Excel or Word table. Section C should provide a detailed itemized budget breakdown for each project year, for each budget category listed in Sections A and B. For each person listed in the personnel category, include a listing of percent effort for each project year, as well as the cost. Section C should also include a breakdown of the fees to consultants, a listing of each piece of equipment, itemization of supplies into separate categories, and itemization of travel requests (e.g. travel for data collection, conference travel, etc.) into separate categories. Any other expenses should be itemized by category and unit cost.

#### **D. Project Abstract**

The abstract is limited to one page, single-spaced (about 3,500 characters including spaces) and should include: (1) The title of the project; (2) the RFA goal under which the applicant is applying (e.g., development, efficacy); and brief descriptions of (3) the purpose (e.g., to develop and obtain preliminary evidence of potential efficacy of a reading comprehension intervention for struggling high school readers); (4) the sample population(s) (age groups, race/ethnicity, SES); (5) key variables; and (6) data analytic strategy (e.g., structural equation models, hierarchical linear models).

#### **E. Research Narrative**

Incorporating the requirements outlined under the section on Requirements of the Proposed Research, the *research narrative* provides the majority of the information on which reviewers will evaluate the proposal. The research narrative must include the four sections described below (a. "Significance" through d. "Resources") in the order listed and must conform to the [format requirements](#) described in section e.

a. *Significance (suggested: 2-3 pages)*. Describe the contribution the study will make to providing a solution to an education problem identified in the Background Section of this RFA.

Provide a compelling rationale addressing, where applicable, the theoretical foundation, relevant prior empirical evidence, and the practical importance of the proposed project.

b. Research Narrative (suggested: 13-16 pages).

- (i) Include clear, concise hypotheses or research questions;
- (ii) Present a clear description of, and a rationale for, the assessment or transcript study data selected; and
- (ii) Present a detailed data analysis plan that justifies and explains the selected analysis strategy, shows clearly how the measures and analyses relate to the hypotheses or research questions, and indicates how the results will be interpreted. Applicants must account for the sampling and psychometric constraints of the NAEP data.

c. Personnel (suggested: 1-2 pages). Include brief descriptions of the qualifications of key personnel (information on personnel should also be provided in their curriculum vitae). For each of the key personnel, please describe the roles, responsibilities, and percent of time devoted to the project.

d. Resources (suggested: 1-2 pages). Provide a description of the resources available to support the project at the applicant's institution and in the field settings in which the research will be conducted.

e. Format requirements. The research narrative is limited to the equivalent of 20 pages, where a "page" is 8.5 in. x 11 in., on one side only, with 1 inch margins at the top, bottom, and both sides. Single space all text in the research narrative. To ensure that the text is easy for reviewers to read and that all applicants have the same amount of available space in which to describe their projects, applicants must adhere to the type size and format specifications for the entire research narrative including footnotes. See frequently asked questions available at <https://ies.constellagroup.com> on or before June 6, 2005.

Conform to the following four requirements:

- (i) The height of the letters must not be smaller than 12 point;
- (ii) Type density, including characters and spaces, must be no more than 15 characters per inch (cpi). For proportional spacing, the average for any representative section of text must not exceed 15 cpi;
- (iii) No more than 6 lines of type within a vertical inch; and
- (iv) Margins, in all directions, must be at least 1 inch.

Applicants should check the type size using a standard device for measuring type size, rather than relying on the font selected for a particular word processing/printer combination. Figures, charts, tables, and figure legends may be smaller in size but must be readily legible. The type size and format used must conform to all four requirements. Small type size makes it difficult for reviewers to read the application; consequently, the use of small type will be grounds for the Institute to return the application without peer review. Adherence to type size and line spacing requirements is also necessary so that no applicant will have an unfair advantage, by using small type, or providing more text in their applications. **Note, these requirements apply to the PDF file as submitted.** As a practical matter, applicants who use a 12 point Times New Roman without compressing, kerning, condensing or other alterations typically meet these requirements.

Use only black and white in graphs, diagrams, tables, and charts. The application must contain only material that reproduces well when photocopied in black and white.

The 20-page limit does *not* include the ED 424 form, the one-page abstract, the ED 524 form and narrative budget justification, the curriculum vitae, or reference list. Reviewers are able to conduct the highest quality review when applications are concise and easy to read, with pages numbered consecutively.

#### **F. Reference List**

Please include complete citations, including titles and all authors, for literature cited in the research narrative.

#### **G. Brief Curriculum Vita of Key Personnel**

Abbreviated curriculum vita should be provided for the principal investigator(s) and other key personnel. *Each vitae is limited to 4 pages and should include information sufficient to demonstrate that personnel possess training and expertise commensurate with their duties (e.g., publications, grants, relevant research experience) and have adequate time devoted to the project to carry out their duties (e.g., list current and pending grants with the proportion of the individual's time allocated to each project).* Previous experience with the NAEP data should be emphasized. The curriculum vita must adhere to the margin, format, and font size requirements described in the research narrative section.

#### **H. Budget Justification**

The *budget justification* should provide sufficient detail to allow reviewers to judge whether reasonable costs have been attributed to the project. It should include the time commitments and brief descriptions of the responsibilities of key personnel. *The budget justification should correspond to the itemized breakdown of project costs that is provided in Section C.* For consultants, the narrative should include the number of days of anticipated consultation, the expected rate of compensation, travel, per diem, and other related costs. A justification for equipment purchase, supplies, travel and other related project costs should also be provided in the budget narrative for each project year outlined in Section C. For applications that include subawards for work conducted at collaborating institutions, applicants should submit an itemized budget spreadsheet for



each subaward for each project year, and the details of the subaward costs should be included in the budget narrative.

## **I. Appendix A**

The purpose of *Appendix A* is to allow the applicant to include any figures, charts, or tables that supplement the research text, examples of measures to be used in the project, and letters of agreement from partners and consultants. In addition, in the case of a resubmission, the applicant may use up to 3 pages of the appendix to describe the ways in which the revised proposal is responsive to prior reviewer feedback. These are the only materials that may be included in Appendix A; all other materials will be removed prior to review of the application. Narrative text related to any aspect of the project (e.g., descriptions of the proposed sample, the design of the study, or previous research conducted by the applicant) should be included in the 20-page research narrative. Letters of agreement should include enough information to make it clear that the author of the letter understands the nature of the commitment of time, space, and resources to the research project that will be required if the application is funded. The appendix is limited to 15 pages.

## **J. Additional Forms**

Please note that applicants selected for funding will be required to submit the following certifications and assurances before a grant is issued:

- (1) SF 424B-Assurances-Non-Construction Programs
- (2) ED-80-0013-Certification Regarding Lobbying, Debarment, Suspension and other Responsibility Matters; and Drug-Free Workplace Requirements
- (3) ED 80-0014 (if applicable)-Lower Tier Certification
- (4) SF-LLL (if applicable) - Disclosure of Lobbying Activities
- (5) Protection of Human Research Subjects assurance and/or Institutional Review Board certification, as appropriate

## **13. APPLICATION PROCESSING**

Applications must be received by **8:00 p.m. Eastern time** on the application receipt date listed in the heading of this request for applications. Upon receipt, each application will be reviewed for completeness and for responsiveness to this request for applications. Applications that do not address specific requirements of this request will be returned to the applicants without further consideration.

## **14. PEER REVIEW PROCESS**

Applications that are complete and responsive to this request will be evaluated for scientific and technical merit. Reviews will be conducted in accordance with the review criteria stated below by a panel of scientists who have substantive and methodological expertise appropriate to the program of research and request for applications.

Each application will be assigned to one of the Institute's scientific review panels. At least two primary reviewers will complete written evaluations of the application, identifying strengths and weaknesses related to each of the review criteria. Primary

reviewers will independently assign a score for each criterion, as well as an overall score, for each application they review. Based on the overall scores assigned by primary reviewers, an average overall score for each application will be calculated and a preliminary rank order of applications prepared before the full peer review panel convenes to complete the review of applications.

The full panel will consider and score only those applications deemed to be the most competitive and to have the highest merit, as reflected by the preliminary rank order. A panel member may nominate for consideration by the full panel any proposal that he or she believes merits full panel review but would not have been included in the full panel meeting based on its preliminary rank order.

### **15. REVIEW CRITERIA FOR SCIENTIFIC MERIT**

The goal of Institute-supported research is to contribute to the solution of education problems and to provide reliable information about the education practices that support learning and improve academic achievement and access to education for all students. Reviewers will be expected to assess the following aspects of an application in order to judge the likelihood that the proposed research will have a substantial impact on the pursuit of that goal. Information pertinent to each of these criteria is also described above in the section on Requirements of the Proposed Research and in the description of the research narrative, which appears in the section on Contents and Page Limits of Application.

Significance	Does the applicant make a compelling case for the potential contribution of the project to the solution of an education problem? Does the applicant present a strong rationale for the project?
Research Plan	Does the applicant present (a) clear hypotheses or research questions; (b) clear descriptions of and strong rationales for the assessment or transcript data selected; and (c) a detailed and well-justified data analysis plan? Does the research plan meet the requirements described in the section on the Requirements of the Proposed Research and in the description of the research narrative in the section on Contents and Page Limits? Is the research plan appropriate for answering the research questions or testing the proposed hypotheses?
Personnel	Does the description of the personnel make it apparent that the principal investigator, project director, and other key personnel possess the training and experience and will commit sufficient time to competently implement the proposed research?
Resources	Does the applicant have the facilities, equipment, supplies, and other resources required to support the proposed activities? Do the commitments of each partner show support for the implementation and success of the project?

## **16. RECEIPT AND REVIEW SCHEDULE**

### **A. Letter of Intent Receipt Dates:**

NAEP Secondary Analysis Program June 6, 2005

### **B. Application Receipt Dates:**

NAEP Secondary Analysis Program July 21, 2005, 8:00 p.m. Eastern time

### **C. Earliest Anticipated Start Date:**

NAEP Secondary Analysis Program March 1, 2006

## **17. AWARD DECISIONS**

The following will be considered in making award decisions:

Scientific merit as determined by peer review

Responsiveness to the requirements of this request

Performance and use of funds under a previous Federal award

Contribution to the overall program of research described in this request

Availability of funds

## **18. INQUIRIES MAY BE SENT TO:**

Dr. Alexandra Sedlacek

Institute of Education Sciences

National Center for Education Statistics

1990 K Street, NW

Washington, DC 20006

Email: [Alex.Sedlacek@ed.gov](mailto:Alex.Sedlacek@ed.gov)

Telephone: (202) 502-7446

## **19. PROGRAM AUTHORITY**

20 U.S.C. 9010 *et seq.*, section 303 of the National Assessment of Educational Progress Authorization Act. This program is not subject to the intergovernmental review requirements of Executive Order 12372.

## **20. APPLICABLE REGULATIONS**

The Education Department General Administrative Regulations (EDGAR) in 34 CFR parts 74, 77, 80, 81, 82, 84, 85, 86 (part 86 applies only to institutions of higher education), 97, 98, and 99. In addition 34 CFR part 75 is applicable, except for the provisions in 34 CFR 75.100, 75.101(b), 75.102, 75.103, 75.105, 75.109(a), 75.200, 75.201, 75.209, 75.210, 75.211, 75.217, 75.219, 75.220, 75.221, 75.222, and 75.230.